

REMARKS

The present application has been reviewed in light of the Office Action dated May 23, 2003. Claims 1-7, 9-15, 17-23, and 25-27 are presented for examination. Claims 1, 6, 9, 14, 17, 22, 26, and 27, which are the only claims in independent form, have been amended to define Applicants' invention more clearly. Favorable reconsideration is requested.

The Office Action states that Claims 1, 6, 9, 14, 17, 22, 26, and 27 are rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. Applicants respectfully traverse the rejections, and submit that the search loop in Fig. 5 (steps S501 and S503-S508) sufficiently discloses more than one search step. (See the corresponding discussion of Fig. 5 at page 11, line 24, to page 13, line 10, of the specification.)

More specifically, according to the present invention, after a plurality of search conditions are inputted, searches are executed in response to a search request. First, one of the search conditions (the first search condition) is retrieved and executed in step S503 (the first search means). If a device is found that matches the first search condition (YES in step S506), the process returns to step S501. Then, another search condition (the second search condition) is retrieved and executed in step S503 (the second search means).

Accordingly, Applicants submit that Claims 1, 6, 9, 14, 17, 22, 26, and 27 are supported by an adequate written description, and respectfully request withdrawal of the rejections under 35 U.S.C. § 112, first paragraph.

The Office Action states that Claims 1, 9, 17, and 26 are rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,477,589 (Suzuki et al.); that Claims 1-

4, 9-12, 17-20, and 26 are rejected under § 103(a) as being unpatentable over U.S. Patent No. 6,348,971 (Owa et al.) in view of U.S. Patent No. 6,295,527 (McCormack et al.); that Claims 5, 13, and 21 are rejected under § 103(a) as being unpatentable over U.S. Patent No. 6,430,612 (Iizuka) in view of U.S. Patent No. 5,778,185 (Gregerson et al.), and further in view of the publication "Network Design Manual: The Future of Enterprise Printing"; and that Claims 6, 7, 14, 15, 22, 23, 25, and 27 are rejected under § 103(a) as being unpatentable over Owa et al. in view of U.S. Patent No. 6,369,909 (Shima).

Applicants respectfully traverse the rejections and submit that independent Claims 1, 6, 9, 14, 17, 22, 26, and 27, together with the claims dependent therefrom, are patentably distinct from the cited prior art for at least the following reasons.

An aspect of the present invention set forth in Claim 1 is directed to a device searching apparatus that searches for at least one device on a network. The apparatus includes input means, first and second search means, search control means, and output means. The input means enters first and second search conditions, both related to a device function, in order to search for a desired device on the network. The first search means searches for at least one device that satisfies the first search condition entered by the input means, and the second search means searches for at least one device that satisfies the second search condition entered by the input means. The search control means controls the first and second search means to execute searches in response to input of a search request. The output means outputs a search result based on the searches by the first and second search means, such that a device that satisfies the first search condition may be discriminated from a device that satisfies the second search condition.

(See, for example, steps S404 and S405 of Fig. 4; and steps S501-S508 of Fig. 5.)

One of the notable features of Claim 1 is that the searches are executed collectively for a plurality of search conditions related to a device function, in response to one external search request. The search conditions are, for example, attributes of a device function.¹

Suzuki relates to a system for searching a network environment for a desired device, and discloses searching for at least one printer that satisfies a search condition. An example of a search result is shown in Fig. 41, which lists a plurality of printers that satisfy a same preset search condition.

Nothing in Suzuki is believed to teach or suggest a device searching apparatus that searches for at least one device on a network, wherein the apparatus includes "first search means for searching for at least one device that satisfies the first search condition entered by said input means," and "second search means for searching for at least one device that satisfies the second search condition entered said input means," and "search control means for controlling said first search means and said second search means to execute searches in response to input of a search request," and "output means for outputting a search result based on the searches by said first search means and said second search means," wherein "said output means outputs the search result such that a device that satisfies the first search condition may be discriminated from a device that satisfies the second search condition," as recited in Claim 1.

More specifically, whereas Suzuki discloses that a search for one or more

¹ The examples presented herein are intended for illustrative purposes. It should not be construed that the present invention is limited in any way to any details discussed in connection with the illustrative examples.

devices is executed based on one search condition, the apparatus of Claim 1 includes first and second search means for searching for devices that respectively satisfy the first and second search conditions. Results of the searches are outputted such that a device that satisfies the first condition may be discriminated from a device that satisfies the second condition. Suzuki does not show or suggest such a feature.

Accordingly, Applicants submit that Claim 1 is not anticipated by Suzuki, and respectfully request withdrawal of the rejection under 35 U.S.C. § 102(e).

Owa et al. relates to a system for selecting an optimum printer for printing. As understood by Applicants, Owa et al. teaches that priorities are entered based on a user's preferences (see Fig. 5). The Office Action alleges that Owa et al. discloses the features of Claim 1 except for the output feature.

McCormack et al. relates to a system for managing a plurality of devices on a network. As understood by applicants, McCormack et al. teaches that information in a database is filtered to obtain static information and dynamic information on a group of devices in the network, and the obtained information is displayed.

Applicants submit that a combination of Owa et al. and McCormack et al., assuming such combination would even be permissible, would fail to teach or suggest a device searching apparatus that searches for at least one device on a network, wherein the apparatus includes "input means for entering a first search condition and a second search condition, both related to a device function, in order to search for a desired device on the network," and "first search means for searching for at least one device that satisfies the first search condition entered

by said input means," and "second search means for searching for at least one device that satisfies the second search condition entered by said input means," and "search control means for controlling said first search means and said second search means to execute searches in response to input of a search request," and "output means for outputting a search result based on the searches by said first search means and said second search means," wherein "said output means outputs the search result such that a device that satisfies the first search condition may be discriminated from a device that satisfies the second search condition," as recited in Claim 1.

As understood by Applicants, the Owa et al. system searches for a single, optimum printer based on a user's preferences. Therefore, Applicants respectfully submit that Owa et al. *teaches away* from executing multiple (first and second) searches for devices that satisfy multiple (first and second) search conditions, respectively, and then outputting a result of the searches in a manner that allows a device that satisfies the first search condition to be discriminated from a device that satisfies the second search condition, as claimed in Claim 1.

Further, Applicants respectfully submit that Owa et al. may not properly be combined with McCormack et al., for at least the reason that Owa et al. focuses on selecting a *single*, optimum device (printer) from a plurality of devices (printers), while McCormack et al. focuses on selecting a *group* of devices and obtaining information on that a group. Therefore, the teachings of Owa et al. and McCormack et al. would, if combined, present a conflict to one of ordinary skill in the relevant art as to whether the hypothetical combined system would select a single device or a group of devices.

Accordingly, Applicants submit that Claim 1 is patentable over the cited art,

and respectfully request withdrawal of the rejection under 35 U.S.C. § 103(a). Independent Claims 9, 17, and 26 include features similar to those discussed above, and therefore are believed to be patentable for at least the above reasons.

An aspect of the present invention set forth in Claim 6 is directed to a device searching apparatus that searches for at least one device on a network. The apparatus includes management means, input means, first and second search means, output means, control means, and discrimination means.

The management means manages a database that includes identification information for identifying a device on the network and static information associated therewith. The input means enters a first group of attributes and a second group of attributes, both related to a device function, for searching for at least one desired device on the network. The first search means searches for at least one device from the database having the first group of attributes, and the second search means searches for at least one device from the database having the second group of attributes.

The output means outputs a search result that includes identification information and static information of a device having at least one of the first and the second groups of attributes. The control means adds dynamic information to the search result, according to a number of devices having at least one of the first and the second groups of attributes. The discrimination means discriminates a device with a high frequency of use, based on the dynamic information, which relates to a use history of devices on the network. In a case in which a number of devices having the first group of attributes is zero, the control means adds to the

search result information of the device with the high frequency of use, as discriminated by the discrimination means.

One of the notable features of Claim 6 is that the first and second groups of attributes (search conditions) are related to a device function, and the searches are executed collectively for a plurality of search conditions related to a device function.

Shima relates to a system in which a proxy server is connected to one or more printers. As understood by Applicants, Shima teaches that the proxy server converts a received print command into a language that a connected printer can interpret.

Applicants submit that a combination of Owa et al. and Shima, assuming such combination would even be permissible, would fail to teach or suggest a device searching apparatus that searches for at least one device on a network, wherein the apparatus includes "management means for managing a database that includes identification information for identifying a device on the network and static information associated therewith," and "input means for entering a first group of attributes and a second group of attributes, both related to a device function, for searching for at least one desired device on the network," and "first search means for searching for at least one device from the database having the first group of attributes entered by said input means," and "second search means for searching for at least one device from the database having the second group of attributes entered by said input means," and "output means for outputting a search result that includes identification information and static information of a device having at least one of the first and the second groups of attributes," and "control means for adding dynamic information to the search result, according to a number of

devices having at least one of the first and the second groups of attributes," and "discrimination means for discriminating a device with a high frequency of use, based on the dynamic information, which relates to a use history of devices on the network," wherein, "in a case in which a number of devices having the first group of attributes is zero, said control means adds to the search result information of the device with the high frequency of use discriminated using said discrimination means," as recited in Claim 6.

As discussed above, the Owa et al. system searches for a single, optimum printer based on a user's preferences. Therefore, Applicants respectfully submit that Owa et al. *teaches away* from executing multiple (first and second) searches for devices that satisfy multiple (first and second) groups of attributes, respectively, as claimed in Claim 6. Shima is not seen to remedy the deficiencies of Owa et al.

Further, Shima specifically states that if "no printer is specified as a destination, a suitable printer is selected from printers remaining in a standby condition (e.g., a printer is selected from printers remaining in a standby condition in order of precedence or identification number. Alternatively, a printer is selected *in decreasing order* of frequency of accumulated use)." (Emphasis added. See column 15, lines 49-54.) Therefore, instead of teaching that a printer is selected *in order* of frequency of use, in which a printer with a high frequency of use is selected before a printer with a low frequency of use, Shima states that a printer is selected *in decreasing order*, which is understood to mean that a printer with a low frequency of use is selected before a printer with a high frequency of use. Therefore, Shima teaches away from the feature of Claim 6 wherein, "in a case in which a number of devices

having the first group of attributes is zero, said control means adds to the search result information of the device with the high frequency of use . . ."

Accordingly, Applicants submit that Claim 6 is patentable over the cited art, and respectfully request withdrawal of the rejection under 35 U.S.C. § 103(a). Independent Claims 14, 22, and 27 include features similar to those discussed above in connection with Claim 6, and therefore are believed to be patentable for at least the above reasons.

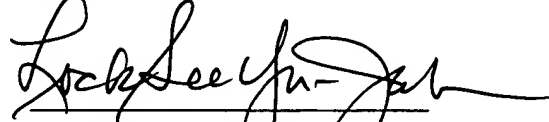
The other claims in this application depend from one or another of the independent claims discussed above, and therefore are submitted to be patentable for at least the same reasons. Since each dependent claim is also deemed to define an additional aspect of the invention, individual consideration of the patentability of each claim on its own merits is respectfully requested.

In view of the foregoing amendments and remarks, Applicants respectfully request favorable reconsideration and early passage to issue of the present application.

CONCLUSION

Applicants' undersigned attorney may be reached in our New York Office by telephone at (212) 218-2100. All correspondence should continue to be directed to our address listed below.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Lock See Yu", written over a horizontal line.

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